

The immortal cell : one scientist's quest to solve the mystery of human aging

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Abstrak

Describes the miraculous breakthroughs scientists have made in the past decade and dispels the many myths and misunderstandings surrounding stem cell research and therapeutic cloning, offering a window into the astonishing potential of regenerative medicine to extend the human life span and cure disease. Annotation. The extraordinary story of the breakthrough discoveries in cell aging, stem cell research, and therapeutic cloning, and the tremendous promise they hold for dramatically extending human life. Dr. Michael West has been consumed with the mystery of science since he was as an inquisitive child mixing chemicals in his attic-turned-laboratory. Today, he stands in the center of a controversy so great that the list of those lining up against him includes President George W. Bush. Once a devoted creationist eager to dispel theories of human evolution, Dr. West was set on a quest to find a scientific solution to the devastating effects of disease and death after the death of his father. He became immersed in the study of cell aging and the discovery of the cellular "clock" telomerase - the mechanism that controls cell aging. His work led him to found the biotechnology company Geron, a pioneer in the field of stem cell research. His new company, Advanced Cell Technology, is the only organization in the United States pursuing human therapeutic cloning research - research in the field of "regenerative medicine" intended to repair damaged and diseased human organs and tissues. Unlike reproductive cloning, the attempt to clone a human child, therapeutic cloning is a process of growing cells, using a patient's own DNA that is inserted it into an unfertilized egg cell to create embryonic stem cells, cells that hold the promise of repairing the damage of age and disease - in essence, making the cell young again. The potential for therapeutic cloning to treat afflictions caused by the loss of dysfunction of cells - from spinal cord injury and skin burns to kidney failures and cancer - is enormous. Part memoir, part adventure story, *The Immortal Cell* chronicles the breakthroughs Dr. West and other scientists have made in biotechnology over the past decade - and the astonishing potential they offer us to cure diseases and improve the quality of human life.